

**MINUTES**  
**Virginia Board of Education**  
**Committee on School and Division Accountability**  
**Tuesday, May 24, 2016**  
**1:00 p.m.**  
**Jefferson Conference Room; James Monroe Building**

**Welcome and Opening Comments**

The following Board of Education (Board) members were present for the May 24, 2016 Committee on School and Division Accountability meeting: Diane Atkinson; Dr. Billy Cannaday, Jr.; James Dillard; Daniel A. Gecker; Elizabeth Lodal; Joan Wodiska; and Wesley J. Bellamy. Dr. Steven Staples, the superintendent of public instruction, was also present. Sal Romero, Jr. and Dr. Oktay Baysal were absent.

Ms. Atkinson, chairman of this committee, convened the meeting and welcomed the Board members and guests. As part of her introductory remarks, she said today's meeting would focus on the "Profile of a Graduate." In addition, she said tomorrow at the Board work session, there would be further discussion of the "Profile" and possible changes to the graduation requirements.

**Approval of Revised Minutes from the March 16, 2016 Committee Meeting and the Minutes from the April 27, 2016 Committee Meeting**

Ms. Atkinson said the revised minutes from the March 16, 2016 committee meeting and the minutes from the April 27, 2016 committee meeting were posted on-line and provided to Board members. The March 16, 2016 committee minutes were revised to show that Ms. Wodiska had observed the full meeting through online streaming. Both the revised minutes from the March 16, 2016 committee meeting and the minutes from the April 27, 2016 committee were approved by the committee members.

**Public Comment**

Ms. Atkinson opened the floor to those persons who wished to provide public comment:

- Fred Hoffman – Virginia Mathematics and Science Coalition (Coalition). Mr. Hoffman said his organization recognizes that there are dynamic issues before the Board. The Coalition has tried to follow educational research that might impact the current initiative and would like to encourage the Board and the department to base its Standards of Learning (SOL) graduation changes on similar work. The use of semester courses at the 9<sup>th</sup> and 10<sup>th</sup> grade levels may not be the best educational model. However, semester courses at the upper grades may make sense as this might allow students to build a better foundation for their future. The Coalition would like to see students take two one-year science courses. In addition, earth science, which is often skipped, might be the better preparation for citizenship.

- Deborah Neely Fisher – Virginia Academy of Science (and a biology professor at J. Sgt. Reynolds Community College). Ms. Fisher brought a letter from the Virginia Association of Science Teachers and discussed highlights from that letter with the committee. The Academy is concerned about the decrease in instructional time for science for non-college bound students in the current proposal. Moreover, the substitution of the four-credit semester option is not equitable to the three year-long credits for science. Its members appreciate the fact that the Board is trying to broaden the types of sciences students are exposed to. However, because they are concerned about depth, they prefer the year-long credits in science. Ms. Fisher noted that they have done some research on admission requirements and found that students who follow the four-credit proposal will be limited to admission to community colleges. She also noted that students will have to decide whether they want to attend college in middle school, but that may be too early for students to make that decision. If they change their minds, the need for more credits will increase the time needed for graduation and college costs.
- Alan Booth – Virginia Junior Academy of Science (and a student at Virginia Commonwealth University or VCU). Mr. Booth said he represented the Virginia Junior Academy of Science which this year had 800 students present their original research at an annual symposium held at the University of Mary Washington. Without adequate science education, he said we would not be able to improve the quality of life on a global scale, have a citizenry who can make informed decisions involving scientific information, or have students who develop a life-long interest in science. Without year-long courses that allow students to be introduced to the fields of science in depth, he is certain that we would fall far short of those challenges. On behalf of the Virginia Junior Academy of Science, he asked the Board to re-consider the proposal for semester-long science courses, as it will restrict educational opportunities.
- Dr. Bethany David – Virginia Academy of Sciences (and a post-doctoral fellow at VCU). Dr. David said as a scientist, a researcher at a state-funded university, an officer of the Academy, a new mother, and a resident of Virginia, she was present to express her deep concern about the proposed changes to the science curriculum in Virginia’s public schools. Increases in scientific knowledge have greatly enhanced the role science plays in our everyday lives. Reducing the science requirements in high school will leave non-college bound students at a disadvantage. Moreover, these changes would almost eliminate the opportunity for talented high school teachers to inspire students. One semester is at best a brief introduction to these complicated disciplines. As a new mother, these changes make her question whether it is in her child’s best interest to be raised in the state of Virginia as access to a quality education will play a pivotal role in where she and her family will decide to live. She asked that they retain the current science requirements.

At the conclusion of these comments, Ms. Atkinson asked if anyone else wanted to provide public comment. When no one responded, she moved on to the next agenda item.

## Discussion of “Profile of a Graduate” from the Perspective of Business Leaders

Ms. Atkinson outlined the format for this agenda item and introduced the following panelists who had been asked to comment on the skills students need to be successful in the work world after they leave high school:

- Brian Warner; Head of Commonwealth Center for Advanced Manufacturing, Rolls-Royce
- Hobey Bauhan; President, Virginia Poultry Federation
- Lane Hopkins; Senior Vice-President and Chief Diversity and Inclusion Officer, Capital One Financial Corporation

Tom Walker (president of Web Teks) was also listed as a panelist on the agenda, but was unable to attend due to a business conflict.

Brian Warner was the first panelist to speak. Here are highlights of his comments:

- Mr. Warner said he has worked for Rolls Royce in the air craft engines and components division for almost 31 years. The company has two locations in Virginia: one in Prince George County and the other in Reston.
- The company works extensively with four-year universities and community colleges. Some of the staff are members of local advisory boards, and the company has also had local high school students as interns. He also serves on the Board of Workforce Development.
- He said the company does not have difficulty finding engineers, but there is a greater need for production staff at the Prince George facility. Both groups benefit from the same core skills: appropriate workplace behavior, ethics, and professionalism. In his field, STEM is very important. Engineers are required to have four-year degrees. Production staff should have an associate’s degree or community college experience.
- The workforce today is different from that of the past in that there is a greater need to work with technology.
- Many prospective employees meet the basic educational requirement regarding grade point average. However, Rolls Royce includes a lot of rigor in the hiring process and looks for students with characteristics that distinguish them from other applicants. Applicants should “stand out.”
- In entry level roles, they look for professionalism and ethics, the person who shows up on time, works when at work, acts and dresses appropriately, and communicates well. They look for people who are energized, engaged, and curious, and they look for leadership in new employees. Employees are retained based on these same characteristics.
- He said they do offer high school apprenticeships, but some of the local schools have indicated that they cannot participate in them. He is not clear as to why this is so.
- A four-year degree is not the only path to a successful future. However, school students do not appear to have knowledge of a career path and what that means.

Lane Hopkins spoke next. Here are the highlights from her presentation:

- Ms. Hopkins said she has been at Capital One for 19 years in human resources and is also a member of the Board of Workforce Development.
- She said they find that high school and college graduates are not prepared to navigate corporate America, but this seems to improve as the students gain more experience after they come out of college. They also find that the students may have the skills and abilities, but they do not know what it means to apply them in work. Thus, many of them do not get on a “path to a living wage.” In addition, college students may choose a degree that will not help them when they finish college. Psychology appears to be selected as a major by many college students, but there are not a lot of psychology positions available. How do we help students in elementary, middle, and high school understand what the real world looks like? How can they start to chart a career path very early?
- At Capital One, everyone has to learn how to navigate technological systems. Other things they look for in employees include resiliency, intellectual curiosity, a strong ability to adapt and manage change, an interest in life-long learning, database and other problem-solving skills, basic financial literacy (personal and business), and strong communication skills.
- There should also be an investment in educators as they need to know how to leverage new technologies and how to teach in a different way. How do we get teachers to a place where they are excited and they have the skills, and the system allows them to bring their creativity back into the classroom?
- Ms. Hopkins said she believes there is opportunity for an ongoing partnership with the business community. Capital One invests a significant amount of money in training its employees, and the company is now taking some of those funds into the schools through a coding program for students. This program has taught 2,500 students in local schools basic coding skills. Although liberal arts is very important, STEM will continue to be very important to corporate America.

Hobey Bauhan was the final speaker for this agenda item. Here are highlights from his presentation:

- Mr. Bauhan said the Virginia Poultry Federation is a trade association for the poultry industry, which is the largest sector of agriculture in Virginia. They employ unskilled workers; supervisors; tradesman, such as electricians and machinists; accountants; farmers; scientists; sales and marketing staff; and management staff. Venues include processing plants, farms, feed mills, hatcheries, distribution facilities, and corporate offices.
- Occupations available vary from plant workers who are line workers to truck drivers, welders, supervisors, information technology administrators, poultry scientists, engineers, and executives. Salaries range from \$10 to \$13 an hour for plant workers to close to \$50,000 annually for plant supervisors. Many of the plant workers have a high school education at most.
- The industry looks for persons who are punctual, dependable, hard-working, and physically able (many of the positions are physically demanding), with an

interest in life-long learning. The industry also looks for specific skill sets. Technical education is very important to many of the positions in much of the industry, and communication skills are important at all levels. At the unskilled level, the ability to follow directions and get along well with others is important. At higher levels, business writing, critical thinking, and public speaking skills, and the ability to work in teams become more important. Much of what they do is very technical. Because finding people to work in the processing plants is becoming more of a challenge, the processing method is becoming more automated. Thus, automation will at some point reduce the number of people in the industry.

- He, too, said that discussion of career paths should start early with students.

Board members raised the following questions and concerns:

- How do you determine whether potential employees have the soft skills necessary? Mr. Warner replied that there is an extensive day-long interview process conducted by multiple teams. This is after they have completed other tests on-line.
- One Board member said students today are somewhat different in the way they like to use technology. Would it be farfetched to have their jobs and profiles fit the students' needs rather than have the students fit a certain profile? Ms. Hopkins said this is a good point. Students do look very different today, and Capital One is trying to address this issue. The company knows if it does not enable young people to use the tools they are used to using, they will not stay with the company. However, if someone is hired to service its customers, Capital One needs the potential employee to service them as he/she has been trained. Part of the selection process is a pretty realistic job preview so that potential employees know what to expect. Mr. Bauhan said in his industry they are dealing with a perishable product. This means people need to be on time and have realistic ideas about what is expected. A Board member said young people will need training in the soft skills needed for employment.
- A Board member asked about the importance of internships and how schools might better work in partnership with businesses. Mr. Warner said internships are important because they help applicants stand out in a competitive environment. Apprenticeships provide hands-on experience. Ms. Hopkins said Capital One will have more than 400 interns this summer across many professional disciplines. Through this process, these students will know what the company's expectations are and what the work environment feels like.
- Another Board member said what she learned from the presentations is the need to help schools start career planning at an early grade. In addition, we need to do a better job on leadership training. She has always thought that "yes" must be the answer when businesses and community members offer to work with school divisions.

Board members thanked the panelists for taking the time to provide their presentations.

## **Discussion of “Profile of a Graduate” from the Perspective of the Board’s Advisory Committee for Career and Technical Education**

Ms. Atkinson outlined the format for this agenda item and introduced the following panelists who had been asked to comment on the “Profile of a Graduate” from the perspective of the Board’s Advisory Committee for Career and Technical Education:

- Drexel N. Harris – Recruiting and Talent Pipeline Strategic Advisor, Dominion Resources
- S. Stewart Harris, Jr. – Program Director, Advanced Integrated Manufacturing (AIM), Thomas Nelson Community College (retired from NASA Langley Research Center)

Drexel Harris began the discussion. Here are the highlights from his comments:

- Mr. Harris said that he is an electrical engineer with nuclear submarine and nuclear plant operations experience. During the last years of his career, he has been with Virginia Dominion Power in human resources. The company has about 14,000 employees and hires about 1,000 people per year. That number will continue to increase as the baby boomers retire. These positions are located in Virginia and in other states. About 68 percent are entry-level positions which require little or no experience. A two-year degree (a certification or an associate’s degree) is preferred for about 17 percent of those 1,000 persons.
- This company is looking for life-long learners, too. The company focuses on people with career and technical education (CTE) credentials because they come in with the skills to do the job, but they find that some of the students are not competitive technically and some do not know how to write. They know how to text. In addition, he has a study guide that he provides to students because the company requires an aptitude test based on mathematics for many of the positions. However, he finds that students preparing to graduate from high school do not do as well on the mathematics test as persons who have been out of school for a period of time. In general, there is about a 50 percent pass rate on that test.
- Dominion has four core values: safety, ethics, excellence, and teamwork. The company hires more than 200 interns every summer and over half are engineers. About 40 percent of the 1,000 people hired annually are engineers. These employees need to have the following skills: networking ability and business and financial awareness, and they need to major in areas that lead to jobs. Many students major in things they like, but companies are not hiring those people. About 75 percent of the persons hired as interns receive jobs with the company. Mr. Harris agreed that students should be exposed to information about career as early as elementary school.

S. Stewart Harris, Jr., said that he is a product of an internship co-op program through Thomas Nelson Community College in the early 1970s. He worked at NASA Langley for forty years and is now at Thomas Nelson Community College where he re-

established the co-op program as well as the apprenticeship program at NASA Langley in 2007-2008. Here are highlights from his comments:

- Through the apprenticeship program, students are able to secure a national certification and an associate's degree. The program is set up so that they can continue on to a bachelor's degree at Old Dominion University if they chose to do so.
- He said his concern is how pipelines can be developed and how we can get students, parents, educators, and industry interested in these very viable careers. He said he is a strong supporter of career and technical education and STEM and noted that these areas need to be integrated to get the kind of person industry is looking for. However, he asked how we can get the people in the pipelines to understand that these are great careers. He, too, said we need to ignite that interest in students while they are in middle school. He said we have great engineering schools in Virginia and a great pipeline for engineering. However, we do not have the same system for some of the technical skills, and a capable technical workforce is needed.
- At the end of his career at NASA, he saw many graduates coming out of excellent engineering programs. However, they did not have a lot of practical experience.
- In response to an earlier inquiry from a Board member, he said that, historically, students in the NASA co-op had been assigned one area where they stayed for the entire three years. However, he changed this traditional model to co-op rotations where the students went into fifteen different sites so that they would be able to see the entire system. Once these students finished their three-year rotation, they had a good understanding of what it took to run the center and as they matched the students with jobs, the students usually gravitated to their areas of interest.

Board members raised the following questions and concerns:

- A Board member asked about broadening students' understanding of multiple talent pipelines. S. Harris said parents have certain perceptions of the manufacturing industry and that needs to change. In addition, representatives from that industry need to bring an understanding of the industry into the classroom and show the opportunities for great jobs in these fields. Mr. D. Harris agreed with that and said that, when he tells students they can make \$50,000 within a year as a lineman, this gets their attention. Mr. S. Harris said the STEM skills are very important.
- A Board member asked to what extent would industry be willing to come in and provide a real work problem in the classroom and how might the Board facilitate this. S. Harris said NASA would be very interested in doing something like this. D. Harris said he has young employees who are willing to go into the classroom to work with students. He said there are also employees who are ready to retire and would be happy to teach in the classroom. However, they cannot teach because of the licensing requirements. S. Harris said he would be happy to serve as a resource to some of the schools.

- Another Board member said she hoped the science and math teachers present would take this information back to their organizations. She also asked if D. Harris would share the aptitude test with them. However, he said his company could not do that because it does not own the test. He indicated that he would share the study guide with any school that wants it.

Board members thanked both panelists for their presentations.

### **SOL Innovation Committee: Update and Feedback on “Profile of a Graduate”**

Ms. Atkinson said that, in April, she had the opportunity to present the “Profile of a Graduate” proposal to the full SOL Innovation Committee on Dr. Cannaday’s behalf. Today, the Accountability Committee will receive feedback from two representatives of that committee:

- Dr. Kim Dockery, retired chief academic officer for Fairfax County Public Schools
- Deborah Frazier, principal for Spotsylvania Public Schools

Ms. Frazier introduced herself as principal at Harrison Road Elementary School in Spotsylvania, one of the co-chairs of the SOL Innovation Committee, and state leader for Virginia with the Virginia Association of Elementary School Principals.

Dr. Dockery said she retired as the chief academic officer for Fairfax County Public Schools in August 2015. Since retirement, she has done some educational consulting in the area of alternative assessments, and she has continued with her work on the SOL Innovation Committee. Dr. Dockery said she and Ms. Frazier were present today to discuss the “Profile of a Graduate” proposal and the committee report recently provided to the Board.

Here are highlights from their presentation:

- Dr. Dockery said, in order to ensure that students are prepared for college, career, and citizenship, there are innovation drivers that have to be looked at concurrently: standards and instruction, assessment, accountability, and professional excellence.
  - Standards and instruction - The Virginia Standards of Learning should be revised to align with the “Profile of a Graduate,” integrating and reaching beyond subject areas to include explicit college, career, and citizenship learning goals. One of the most important things to come out of the subcommittee is the recognition of the move across the nation for deeper learning. The standards have to go deep and not broad. In addition, all of the 5 Cs and the application skills must be embedded within tasks so that the standards and instruction are not isolated.
  - Assessment - The assessment system must assess both rigorous content standards and relevant skills students need to master for success in college, career, and citizenship. While you cannot keep adding things to teachers’ plates, you can change assessment. You can have Capstone

projects and other things that will demonstrate knowledge as earlier panelists discussed in their presentations. Work across the eight regions has started and that work needs to be given time to mature so that instruction is informing assessment and vice versa.

- Accountability - The School Quality Profile should provide descriptive information using multiple measures that are evidence-based, useful in school improvement efforts, and relevant to educators, parents, communities, and the Commonwealth. We need to be able to use multiple measures to look at student outcomes and not just multiple choice tests. Those kinds of multiple measures will drive what is happening in the schools and the classroom. There is also a great deal in the report about accountability being a growth process and not a punitive process.
- Professional excellence - All schools should be engaged in the continuous pursuit of professional excellence. Varied models and strategies should be available so that all schools can access the support they may need. There are great examples of schools doing good work that we can learn from. We can have peer reviews and other innovations that spread professional excellence. In order to make this change, we need to give the conditions, the support, and the time so that the teaching workforce can move to professional excellence.
- Ms. Frazier continued the presentation. She said that, at the April committee meeting, they discussed the recommendations proposed by the SOL Innovation Committee regarding the 5 Cs. She said the 5 Cs (critical thinking, creative thinking, collaboration, communication, and citizenship) were reiterated by the previous presenters today. Those are the things they are looking for in the “Profile of a Graduate.” Moreover, the Committee discussed the students’ voice which needs to be strong and teachers must be at the forefront of this work. She said we also want to bring home best practices as there are wonderful things taking place around the state.
- She said we also need to look at high quality local assessments. School divisions want this autonomy. In addition, school divisions have already embraced Professional Learning Communities.
- The Committee also looked at what key changes need to be made. She said the standards must be revised, as they currently do not provide the depth necessary. In addition, a high school re-design is needed. While there is a need to discuss career and goal setting earlier in elementary school, guidance counselors’ plates are now full. Financial support, staffing for monitoring internships, and professional development are additional supports that are needed. In addition, a new “Profile of a Graduate” will require a communication plan to ensure that everyone understands this transition. Additional supports will be needed for teachers, students, schools, and central offices and clear direction is needed.
- As to any other issues to be addressed in the draft “Profile,” Ms. Frazier said innovation will allow the students to embrace the 5 Cs, and an emphasis on community services/volunteerism should be included. Further, they want business partnerships with state and local businesses.

Board members raised the following questions and concerns:

- A Board member asked about the last slide and the inclusion of environmental literacy. Although the Board member was told it should have been omitted, she said it seemed a perfect element to be included in citizenship.
- Another Board member asked what was meant by “deeper learning.” Dr. Dockery said in a civics class, you could replace the minute facts on a test with a broader theme going beyond knowledge of discrete facts. The Board member said we have been moving more in that direction. Dr. Dockery said we currently have a teaching workforce focused on multiple-choice learning, and they would like to return to project-based learning.
- A Board member said it took about ten years to create the current system, and now we are saying that is not the only behavior we want. As a Board, they will have to determine what they want a graduate to look like. Parents also have concerns and some students have done very well on the current tests. He said we are going to have to keep some of what we have while we make this shift. Dr. Dockery said they attempted to put a timeline in the report to show that this is a long-term process. The communication plan is very important to every stakeholder. In addition, a glossary was included in the subcommittee report so that all stakeholders would have a common language. When the SOL testing was introduced, there was failure before the process was understood. While they look at the progress made for evaluation purposes, testing is still a significant event for teachers.

The Board members thanked the panelists for their presentation.

### **Concluding Remarks and Adjournment**

Ms. Atkinson said the work of the Board and the SOL Innovation Committee seems to be moving in the same direction. She said she hoped that they can continue to collaborate as they move forward.

The meeting adjourned at 3:45.